

IN THE SPECIFICATION

At page 8, please replace paragraph [0028] in the specification with the following amended paragraph:

[0028] Figure 2 is a text listing of an exemplary Rule Set 280 Extended Mark-up Language (XML) file that may be used with CIMMS 114 (shown in Figure 1). Rule set 280 may include a combination of one or more custom rules 282, and a series of properties 284 that define a behavior and a state of custom rules 282. Rules 282 and properties 284 may be bundled and stored in a format of an XML string, which may be encrypted based on, for example, a 25 character alphanumeric key when stored to a file. Rule set 280 is a modular knowledge cell that includes one or more inputs [[286]] (not shown) and one or more outputs [[288]] (not shown). Inputs [[286]] may be software ports that direct data from specific locations in CIMMS 114 to Rule Set 280. For example, an input from a pump outboard vibration sensor may be transmitted to a hardware input termination in DCS 20. DCS 20 may sample the signal at that termination to receive the signal thereon. The signal may then be processed and stored at a location in a memory accessible and/or integral to DCS 20. A first input [[286]] of Rule Set 280 may be mapped to the location in memory such that the contents of the location in memory is available to Rule Set 280 as an input. Similarly, an output [[288]] may be mapped to another location in the memory accessible to DCS 20 or to another memory such that the location in memory contains the output [[288]] of Rule Set 280.

At pages 8 and 9, please replace paragraph [0029] in the specification with the following amended paragraph:

[0029] In the exemplary embodiment, Rule Set 280 includes one or more rules relating to monitoring and diagnosis of specific problems associated with equipment operating in an industrial plant, such as, for example, a power plant, a refinery, and a chemical processing facility. Although Rule Set 280 is described in terms of being used with an industrial plant, Rule Set 280 may be appropriately constructed to capture any knowledge and be used for determining solutions in any field. For example, Rule Set 280 may contain knowledge pertaining to economic behavior, financial activity, weather phenomenon, design processes, and medical conditions. Rule set 280 may then be used to determine solutions to

problems in these fields. Rule set 280 includes knowledge from one or many sources, such that the knowledge is transmitted to any system where Rule Set 280 is applied. Knowledge is captured in the form of rules that relate outputs [[288]] to inputs [[286]] such that a specification of inputs [[286]] and outputs [[288]] allows Rule Set 280 to be applied to CIMMS 114. Rule set 280 may include only rules specific to a specific plant asset and may be directed to only one possible problem associated with that specific plant asset. For example, Rule Set 280 may include only rules that are applicable to a motor or a motor/pump combination. Rule set 280 may only include rules that determine a health of the motor/pump combination using vibration data. Rule set 280 may also include rules that determine the health of the motor/pump combination using a suite of diagnostic tools that include, in addition to vibration analysis techniques, but may also include, for example, performance calculational tools and/or financial calculational tools for the motor/pump combination.

At page 9, please replace paragraph [0030] in the specification with the following amended paragraph:

[0030] In operation, Rule Set 280 is created in a software developmental tool that prompts a user for relationships between inputs [[286]] and outputs [[288]]. Inputs [[286]] may receive data representing, for example digital signals, analog signals, waveforms, manually entered and/or configuration parameters, and outputs from other Rule Sets. Rules within Rule Set 280 may include logical rules, numerical algorithms, application of waveform and signal processing techniques, expert system and artificial intelligence algorithms, statistical tools, and any other expression that may relate outputs [[288]] to inputs [[286]]. Outputs [[288]] may be mapped to respective locations in the memory that are reserved and configured to receive each output [[288]]. CIMMS 114 and DCS 20 may then use the locations in memory to accomplish any monitoring and/ or control functions CIMMS 114 and DCS 20 may be programmed to perform. The rules of Rule Set 280 operate independently of CIMMS 114 and DCS 20, although inputs [[286]] may be supplied to Rule Set 280 and outputs [[288]] may be supplied to Rule Set 280, directly or indirectly through intervening devices.